

WEB BIT (WBIT)

WBIT 1100. Introduction to IT (3)

This course is an introductory course in information technology. Topics include foundation in hardware, software, data, and an overview of the information technology in organizations. Additional topics include structured programming techniques, systems development, database design and networking, with an emphasis on appropriate business ethics, interpersonal skills and team building.

Restrictions: Information Technology - BIT, Information Technology - BSIT

WBIT 1310. Program and Problem Solving I (3)

This course helps students to develop basic problem-solving skills using the Java programming language. Students are introduced to fundamentals of Java programming language with emphasis on primitive data types, control structures, methods, arrays, classes, objects, abstraction, inheritance and polymorphism. Students learn basic techniques of good programming style, design, coding, debugging, and documentation. Students are able to create programs to solve basic practical problems.

Prerequisites: (MATH 1101 or MATH 101) or MATH 1111 or MATH 1113 or MATH 1241 or MATH 1501 or ALG3 with a score of 1 or PCAL with a score of 1 and WBIT 1100

Restrictions: Information Technology - BIT, Information Technology - BSIT

WBIT 2000. The Enterprise and IT (3)

This course will look at the structure and management of an information technology infrastructure. From the management aspect the course will touch on principles and practices of managing both people and technology to support an organization. The course will emphasize how to make an information technology infrastructure effective, efficient, and productive. The management of hardware, software, data, networks and other supporting IT functions will be studied.

Restrictions: Information Technology - BIT, Information Technology - BSIT

WBIT 2300. Discrete Math for IT (3)

Discrete (as opposed to continuous) mathematics is of direct importance to the fields of Computer Science and Information Technology. This branch of mathematics includes studying areas such as set theory, logic, relations, graph theory, and analysis of algorithms. This course is intended to provide students with an understanding of these areas and their use in the fields of Computer Science and Information Technology.

Prerequisites: MATH 1113 or MATH 1241 or MATH 1221

Restrictions: Information Technology - BIT, Information Technology - BSIT

WBIT 2311. Prog. & Prob. Solving II (3)

The emphasis of this course is on advanced programming techniques in Java including GUI's, software reuse through component libraries, recursion, event-driven programming, database processing, file processing, and exception handling. Students are able to create event-driven, graphical programs or text-based programs solving practical problems incorporating databases and external files.

Prerequisites: (WBIT 1310 or ITFN 1303 or CSCI 1301) and (WBIT 2300 or MATH 2020)

Restrictions: Information Technology - BIT, Information Technology - BSIT

WBIT 3010. Technical Communication (3)

This course covers workplace communication at the intermediate level. Topics include audience analysis, research proposal and report writing, document and visual design, editing and presentation design.

Prerequisites: ENGL 1102

Restrictions: Information Technology - BIT, Information Technology - BSIT

WBIT 3110. Systems Analysis and Design (3)

This course introduces the fundamental principles of the design and analysis of IT applications. In this course, students will learn to apply the tools and techniques commonly used by systems analysts to build and document IT applications. Classical and structured tools for describing data flow, data structure, process flow, file design, input and output design, and program specification will be studied, as will object-oriented techniques.

Prerequisites: WBIT 1310 and WBIT 2000

Restrictions: Information Technology - BIT, Information Technology - BSIT

WBIT 3111. IT Project Management (3)

This course will cover the four main phases of project management: planning, organizing, monitoring (or control), and adjusting. It will include project management techniques and tools as applied to information technology. Resource and personnel management and allocation, product testing, scheduling, and project management software are examples of these tools and techniques. Students will study examples of both successful and unsuccessful projects and apply lessons learned to a class project.

Prerequisites: WBIT 3110 and (MATH 1401 or MATH 1231)

Restrictions: Information Technology - BIT, Information Technology - BSIT

WBIT 3200. DB Design, Dev-Deploymt. (3)

An advanced course in database design, development and deployment. Course emphasizes database design, drawing distinctions between data modeling and process modeling using various modeling techniques, including Entity- Relationship Modeling, Object Modeling and Data Flow Diagramming; database development using the relational model, normalization, and SQL; database deployment including control mechanisms, forms, reports, menus and web interfaces. Additional topics include procedures, functions, packages and triggers. Students will design, create and process a database to demonstrate competency in the course content.

Prerequisites: WBIT 2311 (may be taken concurrently) and WBIT 1310

Restrictions: Information Technology - BIT, Information Technology - BSIT

WBIT 3400. Introduction to Digital Media (3)

This course covers the basic design principles and tools for creating and editing digital media elements. Examples of these elements include graphics, animation, audio, video, virtual space and simulation.

Prerequisites: WBIT 1100

WBIT 3410. Web Applications Development (3)

The course provides a survey of techniques and tools for developing basic web pages for delivery of text and graphic information; focus on page markup languages, client-side scripting, page design principles, page layout techniques, markup language syntax, and page styling methods.

Prerequisites: WBIT 1310

WBIT 3500. Architecture and Op. Sys. (3)

This course introduces students to the architectures of computer systems and the operating systems that run on them. It explores and gives experience with some common computer designs and operating systems. Topics include basic computer architecture, instruction set architecture, memory, memory management, processes, and file systems.

Prerequisites: WBIT 1310

WBIT 3510. Data Comm and Networking (3)

This course covers computer network and communications concepts, principles, components, and practices; coverage of common networking standards, topologies, architectures, protocols; design and operational issues surrounding network planning, configuration, monitoring, troubleshooting, and management.

Prerequisites: WBIT 3500

WBIT 3600. Intro to E-Commerce (3)

The emphasis of this course is on basic principles and practices of E-business and E-commerce. Topics include infrastructures and applications of Ecommerce, E-Tailing, E-Marketing, advertisement, B2B, B2C, C2C, E-Government, M-Commerce, E-Learning, electronic payment systems, security, and legal issues. Students also learn to build simple dynamic Ecommerce sites using server-side script

Prerequisites: WBIT 3110 and WBIT 3410

WBIT 4020. Profess'n'l Practices & Ethics (3)

This course covers historical, social, economic, and legal considerations of information technology. It includes studies of professional codes of ethical conduct, philosophy of ethics, risk analysis, liability, responsibility, security, privacy, intellectual property, the internet, and various laws that affect an information technology infrastructure.

WBIT 4030. Senior Project & Portfolio (3)

A capstone course for WebBSIT majors. Students will be expected to complete a final team or individual project. The project may be an approved industry internship or a project developed and designed by faculty of the WebBSIT. Students will apply skills and knowledge from previous WebBSIT courses in project management, system design and development, digital media development, eCommerce, database design, and system integration.

WBIT 4112. Systems Acquisition (3)

Most IT applications used by organizations are configured from components that have been purchased from third-party vendors. This includes both hardware components and, increasingly, software components. In this course, students will study the component acquisition process, and methods and techniques for integrating these components into an existing IT infrastructure.

Prerequisites: WBIT 4520 and WBIT 3200 and WBIT 3110 and WBIT 3510 and WBIT 2311

WBIT 4120. Human-Comp'r Interaction (3)

The emphasis of this course is on fundamentals of human-machine interfaces, both cognitive and physical. Learning styles and effects of short-term memory on cognition and reaction will affect hardware and software development. Students will design a prototype interface.

Prerequisites: WBIT 2311 and WBIT 3400 or ITFN 3601

WBIT 4520. Info. Assurance and Security (3)

This course is an introduction to information assurance and security in computing. Topics include computer, network (distributed) system and cyber security, digital assets protection, data backup and disaster recovery, encryption, cryptography, computer virus, firewalls, terrorism and cyber crimes, legal, ethical and professional issues, risk management, information security design, implementation and maintenance.

Prerequisites: WBIT 3500 and WBIT 3510 (may be taken concurrently)

WBIT 4601. Cust. Relationship Mgmt. (3)

The use of IT applications has allowed many organizations to collect large amounts of data on their clients and to use such data to improve the relationships with their customers. In this course, students will study customer relationship management systems, including the reasons for their emergence, the functionalities that they provide and the issues one would have to face to successfully introduce a Customer Relationship Management System into an organization.

Prerequisites: WBIT 3600 and WBIT 3200 and WBIT 2311

WBIT 4602. IT Strategy (3)

Students will gain an understanding of the complexities of IT systems development and will demonstrate effective strategies commonly used by IT professionals. The course will include surveys of security issues, Internet technologies, web development software, e-commerce models, purchase and payment systems, interfaces with business systems, legal issues, international issues, and marketing and promotion of information technology systems. Students will develop prototypical systems.

Prerequisites: WBIT 2311 WBIT 3600 and WBIT 3200 and WBIT 3111 and WBIT 4120

WBIT 4610. IT Policy and Law (3)

This course will focus on the legal implications of conducting business in the information technology age. Topics will include current understanding of Internet contracts, copyright, trademark and patent law. Further, this course will examine cutting-edge cases relating to security, e-commerce, and emerging ethical issues and trends.

Prerequisites: WBIT 3600 or ITFN 3134